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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/754,652	01/04/2001	Susumu Kusakabe	112857-228	2981

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EXAMINER

SIMITOSKI, MICHAEL J

ART UNIT PAPER NUMBER

2134

DATE MAILED: 09/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/754,652

Applicant(s)

KUSAKABE ET AL.

Examiner

Michael J. Simitoski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-15 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-15 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

ET

DETAILED ACTION

1. The response of 6/27/2005 was received and considered.
2. Claims 1-2, 5-15 & 17 are pending.

Response to Arguments

3. In light of Applicant's response, the rejections previously made under 35 U.S.C. §112 are withdrawn.
4. Applicant's response (p. 9, ¶2-5) argues that Shigenaga, Iijima and Zuk do not contemplate a plurality of business organizations. However, the Watanabe reference is relied upon for teaching this limitation.
5. Applicant's response (p. 10, ¶1) argues that no motivation exists to combine Shigenaga, Iijima and Zuk with Watanabe. However, Watanabe has the benefit of a plurality of organizations being able to access the data, a motivation which is taught in Watanabe.
6. Applicant's response (p. 11, ¶4) argues that Iijima does not disclose securing memory space in a portable device where the memory space includes memory space specifying information that specifies the size of the memory space to be secured. However, Iijima teaches that sending a data definition file to a portable card (col. 3, lines 30-37) with memory space specifying data (col. 4, lines 39-59) allows a card to have memory allocated dynamically (col. 1, lines 10-25).
7. Applicant's response (p. 12, ¶3) argues that the prior art fails to show creating file key information by encrypting the memory space specifying information (i.e. file name and size of a memory space) and the file key information with the issuer key information to assign the file key

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information to each of a plurality of business organizations. However, Iijima teaches memory space specifying information being sent from a terminal to an IC card and even suggests encrypting it with DES (col. 3, lines 20-29 & col. 4, lines 29-59). Zuk teaches explicitly encrypting data between a smart card and a terminal for security (col. 2, lines 15-27 & col. 5, lines 8-23). As stated in rejections under 35 U.S.C. §112, the specification does not disclose, nor is it clear how the file key information can be creating by encrypting the file key information.

Claim Objections

8. Claims 1-2, 5-15 & 17 are objected to because of the following informalities:

Regarding claim 1, “plurality business organizations” (lines 26) should be replaced with “plurality of business organizations”.

Regarding claim 2, “plurality business of organizations” (lines 19-20) should be replaced with “plurality of business organizations”.

Regarding claim 7, “plurality business of organizations” (line 15) should be replaced with “plurality of business organizations”.

Regarding claim 14, “file key information created” (line 10) should be replaced with “file key information is created”.

Regarding claim 14, “plurality business of organizations” (line 12) should be replaced with “plurality of business organizations”.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

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9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claims 1-2, 5-15 & 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not describe creating file key information by encrypting the memory space specifying information and said file key information with said issuer key information.

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 1-2, 5-15 & 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1-2, 5-15 & 17, it is unclear how file key information is created by encrypting the memory space specifying information and said file key information with said issuer key information.

Regarding claim 1, the limitation "said access key information" (line 15) has no antecedent basis.

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Regarding claim 1, the limitation “the file registry information” (line 16) has no antecedent basis.

Regarding claim 5, the limitation “said first issuer key information” (line 6) has no antecedent basis.

Regarding claim 9, the limitation “said second key information” (line 2) has no antecedent basis.

Regarding claim 9, the limitation “said first issuer key information” (line 2) has no antecedent basis.

Regarding claims 10 & 15, the dual use of “issuer key information” renders the claim vague and indefinite. For the purposes of this Office Action, “issuer key information, which is to be newly recorded in said portable electronic device” is understood to be new issuer key information, separate from “issuer key information”.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 1, 2, 7, 11 & 14, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,710,613 to **Shigenaga** in view of 4,849,614 to Watanabe et al. (**Watanabe**) in view of U.S. Patent 5,161,256 to **Iijima** in further view of U.S. Patent 5,745,571 to **Zuk**. Shigenaga discloses an access apparatus possessed by a business organization for

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accessing a portable electronic device, said access apparatus including means for executing an authentication/identification between the business organization and the portable electronic device/IC card by using a access key information/encrypted random number (col. 9, lines 1-12).

Shigenaga's system encrypts data between the terminal and the IC card with issuer key information/IPUK (col. 9, lines 1-12). Shigenaga lacks a plurality of business organizations.

However, Watanabe teaches a system that allows a common area accessible to any enterprise and certain areas to be accessed only from the pertinent enterprise (col. 2, lines 11-14). Watanabe's system stores multiple areas on the card (Fig. 1) each with their own index area (Fig. 1 & Fig. 3); the index areas describing which keys area required to identify an enterprise for access to that specific area of the card (Fig. 3, 3rd and 4th bytes & col. 7, lines 1-46), wherein the keys consist of one or more of an enterprise key, an issuer key, a personal key and a control key (col. 7, lines 10-23). The keys are read into the card and compared with stored values (col. 5, lines 15-35).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the encrypted random number/access key information of Shigenaga to access an area corresponding to the file key information/MPUK/enterprise key. One of ordinary skill in the art would have been motivated to perform such a modification to allow multiple enterprises to access the same card securely and privately by submitting a key to the card, as taught by Watanabe (col. 2, lines 11-14, col. 5, lines 15-35, col. 7, lines 1-46, Fig. 1 & Fig. 3, 3rd and 4th bytes). As modified, Shigenaga lacks means for transmitting file registry information and a management sector, described in the claims. However, Iijima teaches that to send a file to an IC card that has a plurality of areas to be accessed by different applications (col. 1, lines 10-25), an input command in the form of a data file definition command (file registry information) is

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sent and memory is allocated based on the size specified in the command (col. 4, lines 38-59& Fig. 11). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Shigenaga to include means for transmitting file registry information to said portable device/IC card and to include a management sector to generate file registry information, and because Shigenaga transfers data to the card encrypted with the issuer key information/IPUK, to generate the registry information based on the issuer key information, to create said file registry information by securing memory space in the portable electronic device, said memory space including memory space specifying information. One of ordinary skill in the art would have been motivated to perform such a modification to allocate memory space to an IC card to add data, as taught by Iijima (col. 1, lines 10-25, col. 4, lines 38-59& Fig. 11). As modified, Shigenaga lacks the management sector being adapted to create file key information for each of the business organizations by encrypting said memory space specifying information and said file key information with said issuer key information. However, Zuk teaches that to securely transfer data/key to a card, it is known to encrypt the data, transfer the data from a source and at the card, decrypt the data and store it in memory (col. 2, lines 15-27 & col. 5, lines 8-23). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to encrypt the file registry information (data file definition/memory space specifying information) and file key information (key required for access). One of ordinary skill in the art would have been motivated to perform such a modification to securely transfer the data to the card, as taught by Zuk (col. 2, lines 15-27 & col. 5, lines 8-23). As modified, Shigenaga lacks performing the encryption with specifically the issuer key. However, Shigenaga discloses requiring an issuer key to access the data (requiring

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the accessor be the issuer in order to gain access) (col. 7, lines 10-22). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to encrypt the file registry information and file key information with specifically the issuer key. One of ordinary skill in the art would have been motivated to perform such a modification to send (and encode) and receive (decode) the file key information and file registry information securely (as taught by Zuk) from the issuer (as taught by Shigenaga).

15. Claims 5, 10 & 15, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Shigenaga, Watanabe, Iijima & Zuk**, as applied to claims 1, 7 & 14 above, in further view of "SMuG.0" by Canetti et al. (**Canetti**). Shigenaga discloses a system, as described above, but lacks replacing/updating the key as described in claim 15. However, Canetti teaches that one known way to distribute an updated key is to encrypt the new key with the old key (page 5). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to updated the issuer key information by transmitting issuer key change information generated by encrypting issuer key information/new key with said issuer key information/old key. One of ordinary skill in the art would have been motivated to perform such a modification to distribute an updated key, as taught by Canetti (page 5).

16. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Shigenaga, Watanabe, Iijima & Zuk**, as applied to claim 7 above, in view of U.S. Patent 5,991,749 to Morrill, Jr. (**Morrill**). Shigenaga, as modified above, lacks specifically the portable electronic device being a cellular phone. However, Morrill teaches that cellular phones can be used to

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perform functions comparable to smart cards to achieve greater security over previous cell phone techniques (col. 1, lines 14-23 & col. 6, lines 16-35). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to enable a cellular phone with the features of Shigenaga. One of ordinary skill in the art would have been motivated to perform such a modification to achieve greater security for transactions than previous cellular phones offer, as taught by Morrill (col. 1, lines 14-23 & col. 6, lines 16-35).

Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Simitoski whose telephone number is (571) 272-3841. The examiner can normally be reached on Monday - Thursday, 6:45 a.m. - 4:15 p.m.. The examiner can also be reached on alternate Fridays from 6:45 a.m. – 3:15 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse can be reached at (571) 272-3838.

Any response to this action should be mailed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Or faxed to:

(571) 273-8300
(for formal communications intended for entry)

Or:

(571) 273-3841 (Examiner's fax, for informal or draft communications, please label "PROPOSED" or "DRAFT")

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



MJS

September 7, 2005



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